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Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Todd KAPLAN ) Re: Information Disclosure  
 ) Statement  
Serial No.: 10/824,569 ) Group: not yet assigned  
 )  
Filed: April 13, 2004 ) Examiner: not yet assigned  
 )  
 ) Our Ref: B-5327NP 621691-8  
For: "SWITCHING ARRANGEMENT AND DAC )  
MISMATCH SHAPER USING THE SAME") Date: October 12, 2004

Commissioner for Patents  
P.O. Box 1450  
Alexandria VA, 22313-1450

Sir:

In accordance with the Applicant's duty to disclose information which may be material to the examination of this application, the undersigned respectfully requests that the Examiner consider on the merits the documents listed on the enclosed Form PTO-1449 (modified) before issuing the first Office Action on the merits. Copies of the foreign patent documents and the non-patent publications listed on the enclosed Form PTO-1449 (modified) are enclosed herewith for the Examiner's convenience. Copies of the U.S. patent documents listed on the enclosed Form PTO-1449 (modified) are not enclosed, pursuant to Deputy Commissioner Stephen G. Kunin's Pre OG Notice dated July 11, 2003.

The filing of this Information Disclosure Statement (IDS) shall not be construed as a representation that a search has been made (37 C.F.R. 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The Applicant believes that this IDS is being submitted before the issuance of a first Office Action on the merits and before the issuance of a Final Rejection or Notice of Allowance. Therefore, no official fees should be due; and this IDS should be considered

Information Disclosure Statement  
USSN 10/824,569  
October 12, 2004  
Page 2

on the merits. If this IDS is being submitted after the issuance of the first Office Action on the merits and before the issuance of a Final Rejection or Notice of Allowance, please contact the undersigned to authorize a payment of \$180.00 (or any other required amount), which is the fee set forth in 37 C.F.R. § 1.97(c), if the Examiner believes that such a fee is due in order for this IDS to be considered on the merits.

The filing of this Information Disclosure Statement shall not be construed as an admission against interest in any manner. (Notice of January 9, 1992, 1135 O.G. 13-25, at 25.)

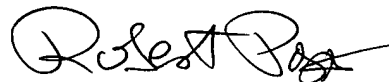
The person making this statement is the practitioner who signs below on the basis of information supplied by an individual associated with the filing and prosecution of this application (37 C.F.R. § 1.56(c)) and on the basis of information in the practitioner's file.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first-class mail in an envelope addressed to the "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450", on October 12, 2004 by Shana Morda.



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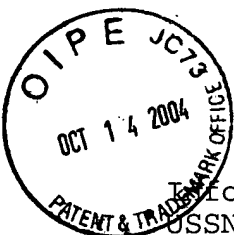
Respectfully submitted,



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Enclosures: Form PTO-1449 (modified) (3 pages)  
Copy of Non-U.S. Patent documents listed on Form PTO-1449 (modified)



## Information Disclosure Statement

USN 10/824,569

October 12, 2004

Page 3

Form PTO-1449 (Modified) Page 1 of 3	ATTY DOCKET NO. B-5327NP 621691-8	U.S. SERIAL NO. 10/824,569
LIST OF PATENTS AND PUBLICATIONS STATEMENT	APPLICANTS Todd KAPLAN	
	FILING DATE April 13, 2004	GROUP not yet assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	ISSUE DATE	NAME	CLASS	SUB- CLASS	FILING DATE or 102(e) DATE IF APPROPRIATE
	5,684,482	11/1997	Galton	341	144	
	5,982,317	11/1999	Steensgaard-Madsen	341	143	
	6,137,431	10/2000	Lee et al.	341	161	
	6,211,805 B1	4/2001	Yu	341	155	
	6,271,782 B1	8/2001	Steensgaard-Madsen	341	143	
	6,326,912 B1	12/2001	Fujimori	341	143	
	6,348,884 B1	2/2001	Steensgaard-Madsen	341	118	
	6,373,424 B1	4/2002	Soenen	341	161	
	6,437,718 B1	8/2002	Oyama et al.	341	143	
	6,441,759 B1	8/2002	Raghavan et al.	341	143	
	6,456,218 B1	9/2002	Dedic et al.	341	144	
	6,469,646 B1	10/2002	Song	341	144	
	6,473,011 B1	10/2002	Steensgaard-Madsen	341	118	
	6,496,129 B2	12/2002	Dedic et al.	341	144	
	6,518,899 B2	2/2003	Yu	341	118	
	6,522,277 B2	2/2003	Fujimori et al.	341	144	
	6,531,973 B2	3/2003	Brooks et al.	341	143	
	6,556,158 B2	4/2003	Steensgaard-Madsen	341	131	
	6,577,257 B2	6/2003	Brooks	341	131	
	6,577,261 B2	6/2003	Brooks et al.	341	144	
	6,628,218 B2	9/2003	Brooks et al.	341	143	
	6,633,248 B2	10/2003	Song	341	144	
	6,661,362 B2	12/2003	Brooks	341	143	

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



## Information Disclosure Statement

USSN 10/824,569

October 12, 2004

Page 4

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## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Galton, I., "Spectral Shaping of Circuit Errors in Digital-to-Analog Converters," <i>IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing</i> , Vol. 44, No. 10, pp. 808-817 (October 1997).
	Geerts, Y., et al., "A 2.5M Sample/s Multi-Bit $\Delta\Sigma$ CMOS ADC with 95dB SNR," <i>IEEE International Solid-State Circuits Conference Digest of Technical Papers</i> , pp. 336-337, 468 (2000).
	Hernandez, L., et al., "Programmable Sine Wave Generator Employing a Mismatch-Shaping DAC," <i>ICECS Dig. Tech. Papers</i> , pp. 135-138 (1998).
	Jensen, H.T., et al., "A Reduced-Complexity Mismatch-Shaping DAC for Delta-Sigma Data Converters," <i>IEEE</i> , pp. I-504-I-507 (1998).
	Kaplan, T., et al., "A 1.3-Ghz IF Digitizer Using A 4th-Order Continuous-Time Bandpass $\Delta\Sigma$ Modulator," <i>IEEE 2003 Custom Integrated Circuits Conference</i> , Session 7-5, pp. 127-130 (2003).
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	Lin, H., et al., "A Bandpass Mismatch-Shaped Multi-Bit $\Sigma\Delta$ Switched-Capacitor DAC Using Butterfly Shuffler," <i>1999 IEEE International Solid-State Circuits Conference Digest of Technical Papers</i> , pp. 58-59 (1999).
	Miller, M.R., et al., "A Multibit Sigma-Delta ADC for Multimode Receivers," <i>IEEE Journal of Solid-State Circuits</i> , Vol. 38, No. 3, pp. 475-482 (March 2003).
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	Razavi, B., <i>Design of Analog CMOS Integrated Circuits</i> , McGraw-Hill, pp. 309-310 (2001).
	Sakina, Y., "Multi-Bit $\Sigma\Delta$ Analog-To-Digital Converters with Nonlinearity Correction Using Dynamic Barrel Shifting," <i>Electronics Research Laboratory</i> , College of Engineering, University of California, Berkeley, Memorandum No. UCB/ERL M93/63, pp. 1-73 (July 26, 1993).

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USSN 10/824,569

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Page 5

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Schofield, W., et al., "A 16b 400MS/s DAC with <-80dBc IMD to 300MHz and <-160dBm/Hz Noise Power Spectral Density," <i>ISSCC Digest of Technical Papers</i> , 10 pages total (2003).
	Schreier, R., et al., "Noise-Shaped Multibit D/A Convertor Employing Unit Elements," <i>Electronics Letters</i> , Vol. 31, No. 20, pp. 1712-1713 (September 28, 1995).
	Shui, T., et al., "Mismatch Shaping for a Current-Mode Multibit Delta-Sigma DAC," <i>IEEE Journal of Solid State Circuits</i> , Vol. 34, No. 3, pp. 331-338 (March 1999).
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	Ueno, T., et al., "A Fourth-Order Bandpass $\Delta$ - $\Sigma$ Modulator Using Second-Order Bandpass Noise-Shaping Dynamic Element Matching," <i>IEEE Journal of Solid State Circuits</i> , Vol. 37, No. 7, pp. 809-816 (July 2002).
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	Welz, J., et al., "Simplified Logic for First-Order and Second-Order Mismatch-Shaping Digital-to-Analog Converters," <i>IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing</i> , Vol. 48, No. 11, pp. 1014-1027 (November 2001).

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